SE&T Colloquium Series-Fall 2019

Speaker	Dr. Yeonhyang Kim Department of Mathematics Central Michigan University Host: Dr. Tom Zerger
Title	***Scalable Frames***
Abstract	A tight frame in R^n is a redundant system that has a reconstruction formula similar to that of an orthonormal basis. Given a spanning set of vectors $\{f_i\}$ in R^n satisfying a certain property, one can manipulate the length of the vectors to obtain a tight frame. Such a spanning set is called a scalable frame. In this talk, we provide a characterization of when a unit-norm frame in R^n can be scaled to a tight frame. We also provide an algorithm to find all possible contact points for the John's decomposition of the identity using a scalable frame. Most of this is work done with CMU REU students. The talk should be approachable to undergraduate students with some background in linear algebra.
Date	Tuesday, November 19
Time	4:10-5:00pm
Place	Pioneer 240 Refreshments will be served at 4:00pm.